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WEASELS

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WEASELS

Fig. 1. Least weasel, *Mustela nivalis* (left); Short-tailed weasel, *M. erminea*, in summer coat (middle); Short-tailed weasel in winter coat (right).



Damage Prevention and Control Methods

Exclusion

Block all entrances 1 inch (2.5 cm) or larger with 1/2-inch (1.3-cm) hail screen or similar materials.

Trapping

Set No. 0 or No. 1 leghold traps inside a protective wooden box.

Live traps.

Other Methods

Not applicable or effective.

Identification

Weasels belong to the Mustelidae family, which also includes mink, martens, fishers, wolverines, badgers, river otters, black-footed ferrets, and four species of skunks. Although members of the weasel family vary in size and color (Fig. 1), they usually have long, slender bodies, short legs, rounded ears, and anal scent glands. A weasel's hind legs are barely more than half as long as its body (base of head to base of tail). The weasel's forelegs also are notably short. These short legs on a long, slender body may account for the long-tailed weasel's (*Mustela*

frenata) distinctive running gait. At every bound the long body loops upward, reminding one of an inchworm.

In the typical bounding gait of the weasel, the hind feet register almost, if not exactly, in the front foot impressions, with the right front foot and hind feet lagging slightly behind. The stride distance normally is about 10 inches (25 cm).

Male weasels are distinctly larger than females. The long-tailed and short-tailed (*M. erminea*) weasels have a black tip on their tails, while the least weasel (*M. nivalis*) lacks the black tip



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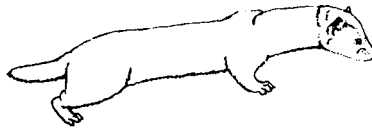
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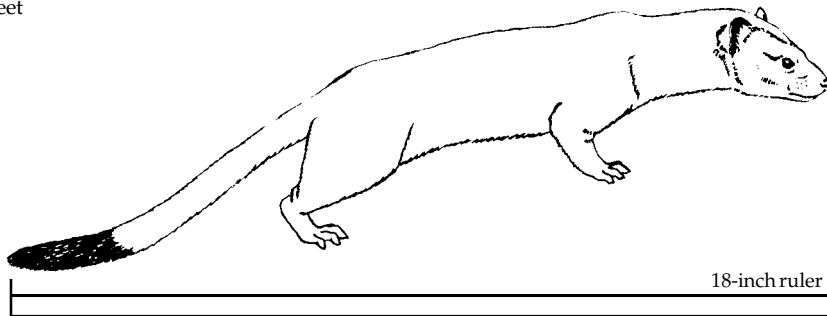
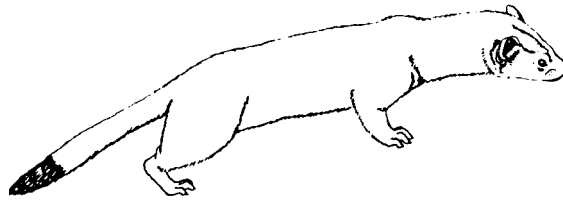
Great Plains Agricultural Council
Wildlife Committee

Fig. 2. Identification of the weasels.

Least weasel, *Mustela nivalis*
 —8 inches long; 2 1/2 ounces in weight
 —short tail without black tip
 —white feet



Short-tailed weasel, *M. erminea*
 —13 inches long; 6 ounces in weight
 —black tip on tail
 —white feet



Long-tailed weasel, *M. frenata*
 —16 inches long; 12 ounces in weight
 —black tip on tail
 —brown feet

(Fig. 2). The long-tailed weasel sometimes is as long as 24 inches (61 cm). The short-tailed weasel is considerably smaller, rarely longer than 13 inches (33 cm) and usually weighing between 3 and 6 ounces (87 and 168 g). Just as

its common name implies, the least weasel is the smallest, measuring only 7 or 8 inches (18 to 20 cm) long and weighing 1 to 2 1/2 ounces (28 to 70 g). Many people assume the least weasel is a baby weasel since it is so small.

Range

Three species of weasels live in North America. The most abundant and widespread is the long-tailed weasel. Some that occur in parts of Kansas, Oklahoma, Texas, and New Mexico have a dark “mask” and are often called bridled weasels. The short-tailed weasel occurs in Canada, Alaska, and the northeastern, Great Lakes, and northwestern states, while the least weasel occurs in Canada, Alaska, and the northeastern and Great Lakes states (Fig. 3).

Habitat

Some authors report finding weasels only in places with abundant water, although small rodents, suitable as food, were more abundant in surrounding habitat. Weasels are commonly found along roadsides and around farm buildings. The absence of water to drink is thought to be a limiting factor (Henderson and Stardom 1983).

A typical den has two surface openings about 2 feet (61 cm) apart over a burrow that is 3 to 10 feet (0.9 to 3 m) long. Other weasel dens have been found in the trunk of an old uprooted oak, in a bag of feathers, in a threshing machine, in the trunk of a hollow tree, in an old mole run, a gopher burrow, and a prairie dog burrow (Henderson and Stardom 1983).

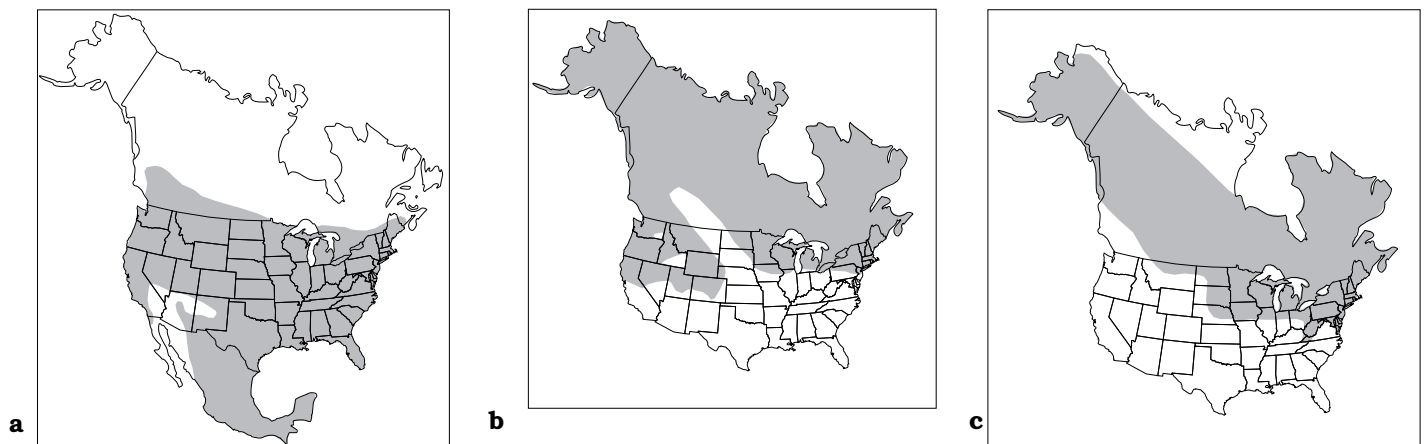


Fig. 3. Range of the (a) long-tailed weasel, (b) short-tailed weasel, and (c) least weasel in North America.

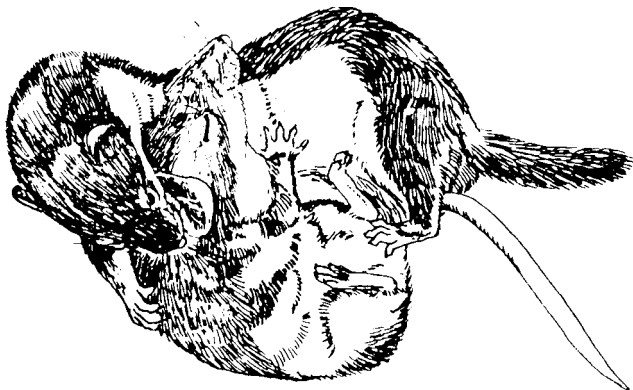


Fig. 4. Weasels are efficient killers, preying on mice as well as on pocket gophers, birds, and other animals.

Food Habits

The weasel family belongs to the order Carnivora. With the exception of the river otter, all members of the weasel family feed primarily on insects and small rodents (Fig. 4). Their diet consists of whatever meat they can obtain and may include birds and bird eggs.

As predators, they play an important role in the ecosystem. Predators tend to hunt the most abundant prey, turning to another species if the numbers of the first prey become scarce. In this way, they seldom endanger the long-term welfare of the animal populations they prey upon.

Long-tailed weasels typically prey on one species that is continually available. The size of the prey population varies from year to year and from season to season. At times, weasels will kill many more individuals of a prey species than they can immediately eat. Ordinarily, they store the surplus for future consumption, much the same as squirrels gather and store nuts.

Pocket gophers are the primary prey of long-tailed weasels. In some regions these gophers are regarded as nuisances because they eat alfalfa plants in irrigated meadows and native plants in mountain meadows where livestock graze. Because of its predation on pocket gophers and other rodents, the long-tailed weasel is sometimes referred to as the farmer's best friend. This statement, however, is

an oversimplification of a biological relationship.

Weasels prefer a constant supply of drinking water. The long-tailed weasel drinks up to 0.85 fluid ounces (26 ml) daily.

General Biology, Reproduction, and Behavior

Weasels are active in both winter and summer; they do not hibernate. Weasels are commonly thought to be nocturnal but evidence indicates they are more diurnal in summer than in winter.

Home range sizes vary with habitat, population density, season, sex, food availability, and species (Svendsen 1982). The least weasel has the smallest home range. Males use 17 to 37 acres (7 to 15 ha), females 3 to 10 acres (1 to 4 ha). The short-tailed weasel is larger than the least weasel and has a larger home range. Male short-tailed weasels use an average of 84 acres (34 ha), and females 18 acres (7 ha), according to snow tracking.

The long-tailed weasel has a home range of 30 to 40 acres (12 to 16 ha), and males have larger home ranges in summer than do females. The weasels appear to prefer hunting certain coverts with noticeable regularity but rarely cruise the same area on two consecutive nights.

Weasel population densities vary with season, food availability, and species. In favorable habitat, maximum densities of the least weasel may reach 65 per square mile (169/km²); the short-tailed weasel, 21 per square mile (54/km²); and the long-tailed weasel, 16 to 18 per square mile (40 to 47/km²). Population densities fluctuate considerably with year-to-year changes in small mammal abundance, and densities differ greatly among habitats.

Weasels, like all mustelids, produce a pungent odor. When irritated, they discharge the odor, which can be detected at some distance (Jackson 1961).

Long-tailed weasels mate in late summer, mostly from July through August. Females are induced ovulators and will remain in heat for several weeks if they are not bred. There is a long delay in the implantation of the blastocyst in the uterus, and the young are born the following spring, after a gestation period averaging 280 days. Average litters consist of 6 young, but litters may include up to 9 young. The young are blind at birth and their eyes open in about 5 weeks. They mature rapidly and at 3 months of age the females are fully grown. Young females may become sexually mature in the summer of their birth year.

Damage and Damage Identification

Occasionally weasels raid poultry houses at night and kill or injure domestic fowl. They feed on the warm blood of victims bitten in the head or neck. Rat predation on poultry usually differs in that portions of the body may be eaten and carcasses dragged into holes or concealed locations.

Legal Status

All three weasels generally are considered furbearers under state laws, and a season is normally established for fur harvest. Check local and state laws before undertaking weasel control measures.

Damage Prevention and Control Methods

Exclusion

Weasels can be excluded from poultry houses and other structures by closing all openings larger than 1 inch (2.5 cm). To block openings, use 1/2-inch (1.3-cm) hardware cloth, similar wire mesh, or other materials.

Trapping

Weasels are curious by nature and are rather easily trapped in No. 0 or 1 steel leghold traps. Professional trappers in populated areas use an inverted wooden box 1 or 2 feet (30 or 60 cm) long, such as an apple box, with a 2- to 3-inch (5- to 8-cm) round opening cut out in the lower part of both ends (Fig. 5). Dribble a trail of oats or other grain through the box. Mice will frequent it to eat the grain and weasels will investigate the scent of the mice. A trap should be set inside the box, directly under the hole at each end of the box. Keep the trap pan tight to prevent the mice from setting off the trap.

Alternatively, make a hole in only one end of the box and suspend a fresh meat bait against the opposite end of the box. Set the trap directly under the bait.

Trap sets in old brush piles, under out-buildings, under fences, and along stone walls are also suggested, since the weasel is likely to investigate any small covered area. Trap sets should be protected by objects such as boards or tree limbs to protect nontarget wildlife.

Weasels can also be captured in live traps with fresh meat as suitable bait. If trapping to alleviate damage is to be conducted at times other than the designated season, the local wildlife agency representative must be notified.

Economics of Damage and Control

Svendsen (1982) writes:

"Overall, weasels are more of an asset than a liability. They eat quantities of rats and mice that otherwise would eat and damage additional crops and produce. This asset is partially counter-balanced by the fact that weasels occasionally kill

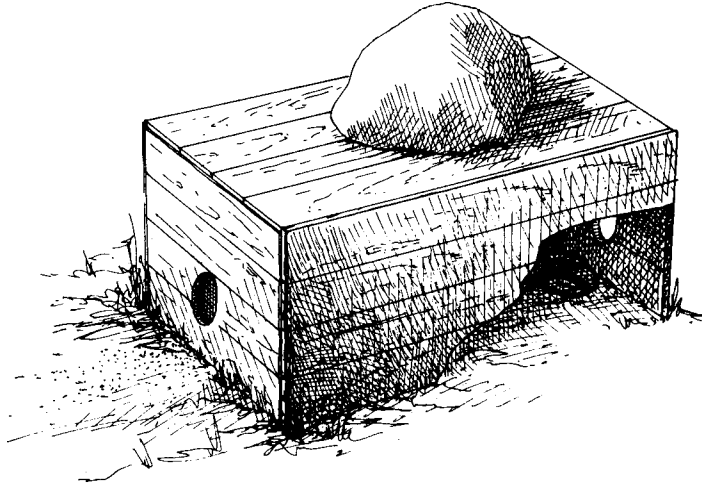


Fig. 5. A trap set within a wooden box can successfully catch weasels without catching larger nontarget species.

beneficial animals and game species. The killing of domestic poultry may come only after the rat population around the farmyard is diminished. In fact, rats may have destroyed more poultry than the weasel. In most cases, a farmer lives with weasels on the farm for years without realizing that they are even there, until they kill a chicken."

Acknowledgments

Figures 1, 2, and 4 adapted by Jill Sack Johnson from "Weasel Family of Alberta" (no date), Alberta Fish and Wildlife Division, Alberta Energy and Natural Resources, Edmonton (with permission).

Figure 3 adapted from Burt and Grossenheider (1976) by Jill Sack Johnson.

Figure 5 adapted from a publication by the US Fish and Wildlife Service.

For Additional Information

Burt, W. H., and R. P. Grossenheider. 1976. A field guide to the mammals, 3d ed. Houghton Mifflin Co., Boston. 289 pp.

Fitzgerald, B. M. 1977. Weasel predation on a cyclic population of the montane vole (*Microtus montanus*) in California. *J. An. Ecol.* 46:367-397.

Glover, F. A. 1942. A population study of weasels in Pennsylvania. M.S. Thesis, Pennsylvania State Univ. University Park. 210 pp.

Hall, E. R. 1951. American weasels. *Univ. Kansas Museum Nat. Hist. Misc. Publ.* 4:1-466.

Hall, E. R. 1974. The graceful and rapacious weasel. *Nat. Hist.* 83(9):44-50.

Hamilton, W. J., Jr. 1933. The weasels of New York. *Am. Midl. Nat.* 14:289-337.

Henderson, F. R., and R. R. P. Stardom. 1983. Short-tailed and long-tailed weasel. Pages 134-144 in E. F. Deems, Jr. and D. Purseley, eds. *North American furbearers: a contemporary reference*. Internatl. Assoc. Fish Wildl. Agencies Maryland Dep. Nat. Resour.

Jackson, H. H. T. 1961. *Mammals of Wisconsin*. Univ. Wisconsin Press, Madison. 504 pp.

King, C. M. 1975. The home range of the weasel (*Mustela nivalis*) in an English woodland. *J. An. Ecol.* 44:639-668.

MacLean, S. F., Jr., B. M. Fitzgerald, and F. A. Pitelka. 1974. Population cycles in arctic lemmings: winter reproduction and predation by weasels. *Arctic Alpine Res.* 6:1-12.

Polderboer, E. B., L. W. Kuhn, and G. O. Hendrickson. 1941. Winter and spring habits of weasels in central Iowa. *J. Wildl. Manage.* 5:115-119.

Quick, H. F. 1944. Habits and economics of New York weasel in Michigan. *J. Wildl. Manage.* 8:71-78.

Quick, H. F. 1951. Notes on the ecology of weasels in Gunnison County, Colorado. *J. Mammal.* 32:28-290.

Schwartz, C. W. and E. R. Schwartz. 1981. *The Wild mammals of Missouri*, rev. ed. Univ. Missouri Press, Columbia. 356 pp.

Svendsen, G. E. 1982. Weasels. Pages 613-628 in J. A. Chapman and G. A. Feldhamer, eds., *Wild mammals of North America: biology, management, and economics*. The Johns Hopkins Univ. Press, Baltimore, Maryland.

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